



SLIPS Welcomes Allowance of Foundational Patents Providing Broad Coverage for New Class of Super-Repellent Surfaces

Patent allowances strengthen position of super-slippery surfaces that even defy Geckos

Cambridge, MA, July 30, 2015 – SLIPS Technologies, Inc. today welcomed the allowance of patent applications 14/140374 and 14/140391 of its licensor, Harvard University, by the USPTO. These patents will provide broad and extensive coverage for a new class of groundbreaking super-repellent surfaces referred to as “liquid infused” or “liquid impregnated” slippery surfaces. The patents also describe unique methods to create super-slippery, self-healing, and omniphobic liquid-based interfaces on any material. These wet slippery materials and methods of making them were originally invented by Dr. Joanna Aizenberg and colleagues at Harvard University, where the term “SLIPS” (slippery liquid-infused porous surfaces) was used by them for their transformational inventions. The first ever patent applications on “Slippery Surfaces with High Pressure Stability, Optical Transparency, and Self-Healing Characteristics” were filed by Harvard University in January 2011, and the corresponding technology was licensed to SLIPS Technologies in 2014.

“These game-changing inventions were first to introduce various ways to create slippery, ultra-repellent surfaces on any material and for an endless range of applications and industries,” said Dr. Aizenberg, co-founder of SLIPS Technologies. “At the company, we are focused on solving the world’s most challenging sticky problems such as biofouling of medical devices and marine structures, icing on heat exchangers, and buildup in oil and gas pipelines.” Dr. Aizenberg chairs the company’s scientific advisory board. She is the Amy Smith Berylson Professor of Materials Science at Harvard’s John A. Paulson School of Engineering and Applied Sciences and a Founding Core Faculty Member at the Wyss Institute for Biologically Inspired Engineering at Harvard University where she is a Platform Leader for Adaptive Materials Technologies.

The allowed patent applications are part of a portfolio including over 25 US and foreign filings owned by Harvard University and licensed to the company, which was launched in October 2014 after significant lab-to-market development had been carried out at the Wyss Institute. The company's Series A venture capital financing (led by BASF Venture Capital), along with funding from grants plus revenues from two joint development agreements, has enabled aggressive product and commercialization activities – including engagement with hundreds of customers globally.

Dr. Aizenberg's inventions opened a new field in materials science, received several industry awards, were adopted by various research teams worldwide and have been quickly followed by others in the industry sector.

In June 2011, researchers in Aizenberg's Harvard laboratory publicly demonstrated for the first time how a SLIPS-coated ketchup bottle can be used to enable complete emptying of viscous fluids out of [containers](#). This original work on liquid-impregnated surfaces was published in the scientific journal [Nature](#) a few months later and received broad scientific and news coverage.

“Our slippery surfaces are created by putting a thin liquid film on the surface of any material, sometimes by first imparting porosity or texture to the surface,” explained CEO Daniel Behr. “This thin liquid film is ‘trapped in place’ on the surface, making the liquid immobile and stable. The result is a super-slippery, robust, and self-healing liquid-based interface on which fluids and fouling agents cannot stick and just slide off. Thus, SLIPS Technologies Inc. has great potential to solve many of the world's ‘sticky problems’ – which explains the flurry of interest we've received from hundreds of customers. I've been involved in dozens of startups but have never seen this level of in-bound business development activity.”

Dr. Philseok Kim, co-inventor, co-founder of the company, and a Visiting Scholar at the Wyss Institute, further explained: “The immobilized liquid film completely coats the solid surface and provides a liquid interface. This is very different from superhydrophobic surface technologies, which are based on textured surfaces that provide pockets of air on which fluids can sit. The SLIPS technologies are also different from and superior to other liquid-impregnated approaches where the liquid film only partially fills the spaces between surface features, which compromises performance.”

About SLIPS™

SLIPS is a trademark used by SLIPS Technologies, Inc. for its new products based on its pioneering

and award-winning set of technologies that transform the surface of any solid material into a microscopically thin and ultra-smooth immobilized “sea” of lubricant. The result is a robust and self-healing super-slippery surface that is highly repellent to most substances including aggressive chemicals, crude oil, water, blood, ice, biofouling agents, paints, concrete, and even insects. Materials including metals, plastics, optics, textiles and ceramics can be SLIPS-enabled cost-effectively and with common manufacturing techniques, thus allowing the technologies to be commercially relevant for a broad range of applications and industries.

About SLIPS Technologies, Inc.

SLIPS Technologies, Inc. is the leader in providing customized solutions for sticky problems in materials. We create highly repellent slippery surfaces for customers in a wide range of applications and industries. Our portfolio of pioneering and award-winning technologies was created at the Harvard University John A. Paulson School of Engineering and Applied Sciences and the Wyss Institute for Biologically Inspired Engineering. The company launched in October 2014 with a \$3 million Series A financing led by BASF Venture Capital.

Nothing Sticks to SLIPS™. www.slipstechnologies.com.

###

For SLIPS Technologies, Inc.:

Karen Sharma

781-235-3060

ksharma@macbiocom.com